BTA41A-1200BW

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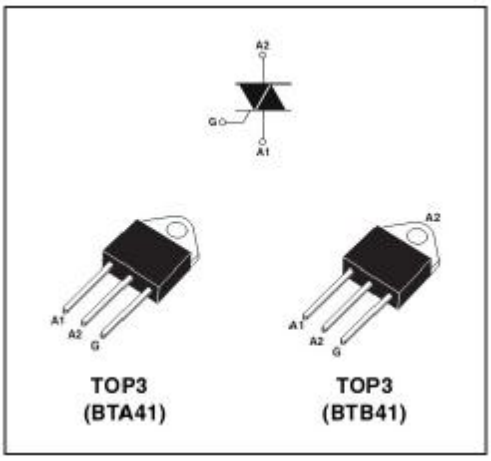
TRIAC

RoHS COMPLIANT

Features:

- NPNPN Bi-direction Triac
- Back multilayer metal electrode
- High temperature reliability
- Glass Passivated junction chipses



Application:

Power tool,moto speed controller; Vacuum cleaner,heating temperature controller; Solid state relay and phase control circuits.

•Limiting Values

Symbol	Absolute maximum ratings Parameters			Value	Unit
IT(RMS)	RMS on-state current	BTA BTB	Tc=80℃ Tc=90℃	40	A
ITSM	Non repetitive surge peak on-state current	F=50HZ	t=20ms	410	A
I^2t	I2t value for fusing	tp=10ms		880	A^2S
di/dt	Critical rate of rise of on-state current		Tj=125℃	50	A/us
VDRM/VRRM	Non repetitive surge peak off-state voltage		Tj=25℃	1200	V
IGM	Peak gate current	tp=20us	Tj=125℃	8	A
PG(AV)	Average gate power dissipation		Tj=125℃	1	W
Tstg Tj	Storage junction temperature range Operating junction temperature range			−40to+150 −40to+125	℃

- **Electrical Characteristics(3 quadrant) (Tj=25℃,unless otherwise specified)**

Symbol	Test Condition	Quadrant		Value	Unit
I_{GT}	V_D=12V R_L=100Ω	I II III	MAX	120	mA
V_{GT}			MAX	1.5	V
V_{GD}	Tj=125℃		MIN	0.2	V
I_H	I_T=0.5A		MAX	80	mA
I_L	I_G=1.2I_{GT}		MAX	70	mA
				160	
dv/dt	V_D=2/3V_{DRM} Tj=125℃		MIN	800	V/us
(dv/dt)c	Tj=125℃		MIN	10	V/us

- **Static Characteristics**

Symbol	Test Conditions			Value	Unit
V_{TM}	I_{TM}= 82A	Tj=25℃	MAX	1.55	V
V_{T0}	Threshold voltage	Tj=125℃	MAX	0.86	V
Rd	Dynamic resistance	Tj=125℃	MAX	6.4	mΩ
I_{DRM} I_{RRM}	V_{DRM} = V_{DRM}	Tj=25℃ Tj=125℃	MAX	10	uA
				2	mA
$R_{th(j-c)}$	Junction to case (AC)	BTA		0.9	℃/W
		BTB		0.6	

- **TO-3P Dimension**